Br J Vener Dis 1984;**60**:56-7

Urethritis caused by group B streptococci:
A case report

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SUMMARY We describe a case of urethritis caused by group B streptococci. The diagnosis was confirmed by examination of a Gram stained smear, isolation of the organism from the urethral discharge, and also by the clinical response to treatment with phenoxymethyl penicillin.

Introduction

Group B streptococcus was first recognised as a cause of bovine mastitis, and has now emerged as the leading aetiological agent of septicaemia and meningitis in the neonate.[1-3] It has recently been implicated in puerperal sepsis, endometritis, amnionitis, and urinary tract infection.[4] Although the organism has been isolated from the genital tract of both male and female patients,[5] as far as we know urethritis has not previously been ascribed to it. We report on a case of urethritis caused by group B streptococci.

Case report

A 35 year old Bangladeshi man sought treatment for dysuria and urethral discharge of one year's duration. He had had sexual contact with his wife four days before his clinic attendance and there was no history of extramarital, orogenital, or anal sexual intercourse.

Examination showed a mucoid urethral discharge and redness on the inner aspect of the meatus. A Gram stained smear of the urethral discharge showed many pus cells and Gram positive cocci in chains but no diplococci. Culture of urethral specimens on three successive days produced a heavy growth of group B streptococci each time. Culture for *Chlamydia trachomatis* was carried out on irradiated McCoy cells, but no growth was obtained. Serological tests for antibodies against *C trachomatis* serotypes A to K, lymphogranuloma venereum I, II, and III, and *C psittaci* gave negative results. Culture for *Ureaplasma urealyticum* was not performed. A urine culture also yielded a heavy growth of group B streptococci. Serological tests for syphilis were negative.

A seven day course of treatment with phenoxymethyl penicillin (500 mg by mouth 6 hourly) was started, and when the patient was seen 10 days later his urethral discharge and dysuria had resolved. Direct microscopy of the urethral material showed neither pus cells nor streptococci, and Group B streptococci were not isolated on culture.

The patient's wife complained of dysuria and vaginal discharge of one year's duration. There was no history of extramarital sexual contact. On examination the vulva and vaginal walls were normal. There was no cervical erosion, but a mucopurulent discharge was seen on the cervix. A wet mount preparation of the discharge showed many pus cells but no trichomonads or yeasts. Group B streptococci were isolated from both cervix and urethra. All other investigations yielded normal results. She was given the same treatment and her recovery was uneventful. During the course of treatment the couple abstained from sexual intercourse. When seen after three weeks both patients were free of symptoms.

MICROBIOLOGY

The organism was identified as being group B streptococcus by its cultural characteristics and by Lancefield's grouping using Streptex (Wellcome Laboratories, United Kingdom). It was sensitive to benzyl penicillin, ampicillin, erythromycin, and clindamycin but resistant to tetracycline, as determined by disc diffusion tests with a control comparison method. The organism was not typed.

Discussion

Non-gonococcal urethritis (NGU) is by far the most common diagnosis in men attending most sexually transmitted disease (STD) clinics. About 30-70% of male clinic patients suffer from NGU,[6 7] and 20-30%

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Accepted for publication 13 July 1983

of male patients treated for gonorrhoea with penicillin may subsequently need treatment for postgonococcal urethritis.[8] Organisms commonly associated with NGU are *C trachomatis* and *U urealyticum*,[9 10] and *Haemophilus parainfluenzae* was recently described as a possible causative agent.[11]

Franciosi *et al*[12] demonstrated streptococci with the same serogroup B serotype in 45% of the male partners of women infected vaginally with group B streptococci. These bacteria are potentially pathogenic and probably transmitted sexually. Wallin and Forsgren[5] isolated group B streptococci from 16·4% of men and 20% of women attending an STD clinic, but they could not prove a causal relation between the organisms and the clinical signs and symptoms of the genital infections. This agrees with a recent report from India by Sehgal *et al*.[13]

In our case culture for *C trachomatis* gave negative results and antibodies against chlamydiae were not detected by immunofluorescent tests. Clinical improvement after treatment with penicillin suggested that *U urealyticum* was probably not the causative agent, since this organism is entirely resistant to penicillin. We conclude that the presence of streptococci in the stained smear, the heavy growth of group B streptococci on culture, negative results to culture and serology for chlamydiae, and response to treatment with penicillin constitute sufficient evidence that this patient's symptoms had been caused by group B streptococci.

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